

STATE OF ILLINOIS
ILLINOIS COMMERCE COMMISSION

CENTRAL ILLINOIS LIGHT COMPANY)	
d/b/a AmerenCILCO)	
)	
CENTRAL ILLINOIS PUBLIC SERVICE)	
COMPANY)	07-0539
d/b/a AmerenCIPS)	
)	
ILLINOIS POWER COMPANY)	
d/b/a AmerenIP)	
)	
Approval of the Energy Efficiency and)	
Demand-Response Plan.)	

TESTIMONY OF CHRISTOPHER C. THOMAS
ON BEHALF OF THE CITIZENS UTILITY BOARD

CUB Exhibit 1.0

December 14, 2007

ICC DOCKET NO. 07-0539

DIRECT TESTIMONY OF CHRISTOPHER C. THOMAS

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Exhibits

- 1.01 Docket Summary for Christopher C. Thomas
- 1.02 Good Sense Presentation
- 1.03 Jason Black paper
- 1.04 Ameren’s Response to CUB Discovery Request 2.06
- 1.05 Ameren’s Response to CUB Discover Request 2.08

1 **I. STATEMENT OF QUALIFICATIONS**

2 **Q. PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.**

3 A. My name is Christopher C. Thomas. My business address is 208 S. LaSalle Street, Suite
4 1760, Chicago, IL 60604-1003.

6 **Q. WHAT IS YOUR PRESENT OCCUPATION?**

7 A. I am employed by the Citizens Utility Board (“CUB”) as the Director of Policy. My
8 duties include development of CUB’s policy positions, filing expert testimony before the
9 Illinois Commerce Commission (“ICC” or “Commission”) on CUB’s behalf, and
10 management of the Policy Department. My responsibilities also include serving as
11 CUB’s voting representative to the PJM member committee and working to develop
12 consumer sector positions within the MISO Advisory Committee.

14 **Q. PLEASE SUMMARIZE YOUR PROFESSIONAL EXPERIENCE.**

15 A. My professional career includes eight years as a utility regulatory economist. I started my
16 career as a regulatory economist in the Telecommunications Department of the Missouri
17 Public Service Commission (“MoPSC”). While with the MoPSC, I filed testimony or
18 affidavits in 11 different dockets. I became a CUB employee in September 2004, and have
19 filed testimony before the ICC in numerous dockets. CUB Exhibit 1.01, attached to this
20 testimony, is a list of the dockets in which I have filed testimony and a brief description of
21 the nature of each docket.

Q. PLEASE DESCRIBE YOUR EDUCATIONAL BACKGROUND.

A. I have a Bachelor's degree in Business Administration with a concentration in Finance and a minor in Economics from Truman State University, and a Master's degree in Economics and Finance from Southern Illinois University, Edwardsville.

II. PURPOSE OF TESTIMONY

Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY?

A. The purpose of my testimony is to address Ameren's proposed Residential Direct Load Control program, which the company has proposed to meet the demand response standards of Section 12-103(c) of the Act. This section requires electric utilities to implement "cost-effective demand response measures to reduce peak demand by 0.1% over the prior year for eligible retail customers." 220 ILCS 5/12-103(c). There are two general problems with the Company's proposal:

- 1) Ameren's cost estimates are only assumptions, which are not based on the Company's own experience.
- 2) Ameren must maximize the value of the direct load control program and return any financial benefits to customers by modifying Rider EDR.

Q. WHAT IS AMEREN'S PROPOSED RESIDENTIAL DIRECT LOAD CONTROL PROGRAM?

A. Ameren proposes to implement an air conditioner cycling program for residential customers with central air conditioning units. This program is very similar to ComEd's

45 Nature First program, which has operated for a number of years in northern Illinois.
46 Essentially, Ameren will install a switch on the compressor of each participant's central
47 air conditioner. This switch allows Ameren to turn the compressor on and off for short
48 periods of time on peak summer days (commonly referred to as cycling). In return,
49 customers receive bill credits for participating in the program, depending on their level of
50 participation. Cycling air conditioners reduces load during peak times and acts as a relief
51 valve against stress on the distribution system. Using an air conditioner cycling program
52 to reduce demand during peak times also reduces electricity prices.

53
54 **Q. ARE YOU CONCERNED ABOUT THE IMPACT THAT DIRECT LOAD**
55 **CONTROL WILL HAVE ON CUSTOMER COMFORT?**

56
57 A. Of course. Customer comfort is one of CUB's foremost concerns. However, studies
58 have found that direct load control can achieve significant peak load reductions without
59 moving outside of the comfort zones established by the American Society of Heating,
60 Refrigerating, and Air Conditioning Engineers (ASHRAE) basic comfort guidelines. See
61 CUB Exhibit 1.02 (Good Sense presentation, Slide 6); CUB Exhibit 1.03 (Jason Black
62 Paper, Figure 5). These studies show that a cycling program may impact temperature
63 levels within a structure by 1 to 3 degrees, well within the ASHRE guidelines. *Id.*

68 **III. AMEREN'S PROPOSED COST ESTIMATES**

69
70 **Q. WHAT PROBLEMS HAVE YOU IDENTIFIED WITH AMEREN'S PROPOSED**
71 **COST ESTIMATES?**

72
73 A. Because Ameren has not done an air conditioner cycling program in the past, Ameren
74 does not have experience with such a programs costs. Thus, Ameren's cost estimates are
75 only assumptions. Additionally, as I will explain, there is an inconsistency between these
76 assumptions and the company's proposed budget. Therefore, the Commission must
77 ensure that the costs recovered through the Company's proposed Rider EDR are
78 appropriate.

79
80 **Q. HOW DO YOU KNOW THAT AMEREN'S PROPOSED COSTS FOR THE**
81 **DIRECT LOAD CONTROL PROGRAM ARE ASSUMED?**

82
83 A. In Ameren's Response to CUB Discovery Request 2.06 (CUB Ex. 1.04) the company
84 stated:

85 The incentive of \$170 represents the assumed cost of \$145 for the control switch
86 and an assumed customer payment of \$25. The \$145 and \$25 values were
87 selected to be generally consistent with assumptions used for the ComEd Nature
88 First Program. Ameren Response to CUB 2.06.

89
90 In Ameren's Response to CUB Discover Request 2.08 (CUB Ex. 1.05) the company
91 stated:

92 The budget is the sum of incentive and non-incentive program costs. Incentive
93 program costs are equal to the \$170 assumed per measure incentive and the
94 estimated number of participants. Non-incentive program costs were set at 25%
95 of incentive costs, essentially as a placeholder to test cost effectiveness. Ameren
96 Response to CUB 2.08.
97

Ameren should explain its assumptions, and why they should apply to Ameren, more thoroughly.

Q. WHAT, SPECIFICALLY, IS INCONSISTENT WITH AMEREN'S BUDGET?

A. In response to CUB 2.08, shown above, Ameren states that it bases its budget on a \$170 per customer incentive cost and a placeholder of 25% non-incentive costs. However, this methodology is not consistent with the budget contained on page 103 of Ameren Ex. 1.0. Table 1 below demonstrates the discrepancies:

TABLE 1: INCONSISTENCIES IN AMEREN'S BUDGET

	2008	2009	2010
New Switches (from Ameren Ex. 1.0, Pg. 103).	3,090	3,104	3,215
Total Switches	3,090	6,194	9,409
Switch Cost (from CUB DR 2.06).	\$145	\$145	\$145
Participant Incentive (from CUB DR 2.06)	\$25	\$25	\$25
Total Incentive Cost	\$525,300	\$604,930	\$701,400
25% Non-incentive Cost	\$131,325	\$151,233	\$175,350
Total Incentive and Non- Incentive Cost	\$656,625	\$756,163	\$876,750
Ameren Budget (from Ameren Ex. 1.0, Pg. 103)	\$637,326	\$851,820	\$1,087,386
Inconsistency (Ameren Budget less Total Costs)	(\$19,299)	\$95,658	\$210,636

As Table 1 demonstrates, using the methodology Ameren identified in response to CUB 2.08, Ameren has under-budgeted costs in 2008 and over-budgeted in 2009 and 2010.

The Company should explain the discrepancy between the methodology provided in response to CUB 2.08 and the budget shown on page 103 of Ameren Ex. 1.0.

Q. HOW SHOULD THE COMMISSION DETERMINE IF THE COSTS PROPOSED BY AMEREN ARE APPROPRIATE?

A. The Company states that it will file monthly informational filings and submit informational annual audits in an annual report to the Commission. Because these filings are only informational in nature, the Commission should make it clear that the costs included in Ameren's proposed Rider EDR should include only Ameren's actual costs, exclusive of inflation or other projected asymmetrical costs. The Commission should ensure that any projected costs recovered through Rider EDR are offset by cost savings.

Q. WHY IS IT INAPPROPRIATE TO INCLUDE INFLATION IN THESE COST ESTIMATES?

A. All companies experience inflation through the rising cost of labor, healthcare, and materials and supplies. Companies also experience increased productivity that offsets the effects of inflation. Unfortunately, utilities often seek to include the effects of inflation in projected costs without incorporating productivity growth as well. According to the Bureau of Labor Statistics most recent release of "Productivity and Cost By Industry: Selected Service-Providing and Mining Industries, 2005," unit labor costs for power generation and supply utilities (NAICS number 2211 - which I understand to include electric power generation, transmission and distribution functions) actually fell by 3.7%

between 2004 and 2005. The Commission cannot include cost increases in a rider without the offsetting symmetric cost savings that occur through productivity gains. The Commission should make it clear in its Order, that Ameren is not entitled to include inflation in any costs to be charged to customers, and that costs included in Rider EDR should be symmetric. That is, Rider EDR costs should include both projected cost increases and cost savings.

IV. THE COMMISSION MUST DIRECT THE COMPANY TO MAXIMIZE THE DIRECT LOAD CONTROL PROGRAM'S VALUE AND RETURN ANY FINANCIAL BENEFITS TO CUSTOMERS

Q. HOW CAN AMEREN MAXIMIZE THE VALUE OF THE DIRECT LOAD CONTROL PROGRAM?

A. Direct load control programs such as the one Ameren has proposed in this docket displace the need to purchase additional energy, capacity, and potentially even ancillary services, to serve customers. In many RTO administered markets, participants can receive payments for the demand response achieved through their direct load control programs.

Q. ARE SUCH PAYMENTS AVAILABLE TO AMEREN'S DIRECT LOAD CONTROL PROGRAM?

A. Potentially. The Midwest ISO ("MISO") runs an ancillary service market that includes provisions for demand response to participate, although it is not clear exactly how that participation would occur. In addition, if MISO follows the trends established by more

mature ISOs, such as PJM Interconnection, LLC, there will be energy and capacity revenues available for this program in the future.

Q. HOW CAN WE TELL THAT AMEREN DOES NOT INTEND TO RETURN ANY REVENUES GENERATED BY THE DIRECT LOAD CONTROL PROGRAM TO CUSTOMERS?

A. Ameren's proposed Rider EDR (Ameren Ex. 5.1) does not include any mechanism to flow revenues received from these programs back to customers. As I will discuss below, Ameren may be able to produce revenue by selling the energy, and capacity generated by these programs into future markets. These revenues must flow through to consumers. Thus, the Commission must add a factor to Ameren's proposed EDR Charge ("EDRC") that adds revenues received from programs into the calculation of the charge. ComEd included such a factor in its Rider EDA (Docket 07-0540, ComEd Ex. 1.0, Appendix F), and the following modified version of that language is appropriate for Ameren to include in its tariff:

Factor RIC – Reimbursement of Incremental Costs, in \$, that are equal to funds from any source other than the application of EDRC that the Company expects to receive that are associated with the applicable twelve (12) month period of an ICC approved energy efficiency and demand response plan, if any, directly related to the implementation of programs and not otherwise credited.

Inclusion of this factor would change the calculation of Ameren's EDRC as follows:

$$\text{EDRC} = [(\text{PC} + \text{RIC} + \text{ARA} + \text{ORA}) / \text{PE}] \times \text{UF} \times [100/1]$$

189 **Q. WHAT IF AMEREN CANNOT GENERATE ADDITIONAL REVENUE WITH**
190 **RIDER EDR?**

191
192 A. Until it is clear how demand response can participate in MISO's ancillary services
193 market, the RIC factor that I have proposed to include in Ameren's Rider EDR may be
194 zero. However, it is necessary to include this factor to account for revenues that may
195 arise in the future. My understanding is that MISO's Demand Response Working Group
196 is working to incorporate demand response resources into MISO's markets. The
197 Commission should direct the utility to capture all available energy and capacity revenues
198 from MISO administered markets, and from the yet to be formed Illinois Power Agency
199 ("IPA") when, appropriate processes to purchase the capacity and energy value of
200 demand response are instituted.

201
202 **V. CONCLUSION**

203 **Q. PLEASE SUMMARIZE YOUR TESTIMONY.**

204 A. Ameren's cost estimates are only assumptions, which are not based on the Company's
205 own experience. Ameren should explain its assumptions more thoroughly. In addition,
206 the Commission should make it clear in its Order that Ameren is not entitled to include
207 inflation in any costs to be charged to customers, and that costs included in Rider EDR
208 should be symmetric. That is, Rider EDR costs should include both projected cost
209 increases and cost savings. The Company should explain the discrepancy between the
210 methodology provided in response to CUB 2.08 and the budget shown on page 103 of

211 Ameren Ex. 1.0, and Ameren must maximize the value of the direct load control program
212 and return any financial benefits to customers by modifying Rider EDR.

213 **Q. DOES THAT CONCLUDE YOUR TESTIMONY?**

214 **A. Yes.**